

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): In a code division multiple access radio communication system, a power calculation method for calculating a power of a radio wave in a radio channel included in a radio line established between a transmitting station and a receiving station in the system, comprising the step of:

calculating the power of the radio wave of the radio channel, ~~with~~ using a transmission power of the radio channel and a total transmission power including the transmission power of the radio channel,

wherein a required receiving power R in the radio channel is calculated by an equation represented by a required receiving power R_0 when interference does not exist at all at a receiver, and a ratio P_{total}/P of the total power P_{total} transmitted from the transmitting station and the transmission power P of the predetermined radio channel transmitted from the transmitting station.

Claims 2 and 3 (Canceled).

Claim 4 (Currently Amended): A power calculation method as claimed in claim 1, wherein the ~~the~~ required receiving power R in the radio channel is calculated by a following formula:

$$R = R_0 \frac{1}{1 - \frac{\Lambda}{pg} \bullet \frac{P_{total}}{P}}$$

herein,

~~R_0 is a required receiving power when interference does not exist at all at a receiver,~~

Λ is a signal to noise (interference is included) power ratio required at the receiver,
and

pg is a spread gain[[,]]

~~P is the transmission power of the predetermined radio channel transmitted from the transmitting station, and~~

~~P_{total} is the total power transmitted from the transmitting station.~~

Claim 5 (Currently Amended): ~~A power calculation method as claimed in claim 3~~ In a code division multiple access radio communication system, a power calculation method for calculating a power of a radio wave in a radio channel included in a radio line established between a transmitting station and a receiving station in the system, comprising the step of:
calculating the power of the radio wave of the radio channel, using a transmission power of the radio channel and a total transmission power including the transmission power of the radio channel,

wherein a following formula is used to calculate a required receiving power R at a receiver,

$$R = R_0 \frac{1}{1 - \frac{\Lambda}{pg} \cdot \frac{1}{\xi}}$$

herein,

R_0 is a required receiving power when interference does not exist at all at the receiver,

Λ is a signal to noise (interference is included) power ratio needed by the receiver,

pg is a spread gain, and

ξ is a ratio of the transmission power of the predetermined radio channel transmitted from the transmitting station to the total transmission power.

Claims 6 and 7 (Canceled).

Claim 8 (Currently Amended): ~~A power calculation method as claimed in claim 6~~ In a code division multiple access radio communication system, a power calculation method for calculating a power of a radio wave in a radio channel included in a radio line established between a transmitting station and a receiving station in the system, comprising the step of:
calculating the power of the radio wave of the radio channel, using a transmission power of the radio channel and a total transmission power including the transmission power of the radio channel,

wherein ~~[[the]]~~ a required receiving power R is calculated by one of following formulas:

$$R = R_0 \frac{1}{1 - \frac{\Lambda}{pg} \bullet \frac{P_{total}}{P} \bullet \gamma}$$

or

$$R = R_0 \frac{1}{1 - \frac{\Lambda}{pg} \bullet \frac{\gamma}{\xi}}$$

herein,

R_0 is a required receiving power when interference does not exist at all at the receiving station,

Λ is a signal to noise (interference is included) power ratio required by the receiving station,

pg is a spread gain,

P is the transmission power of the predetermined radio channel transmitted from the transmitting station,

P_{total} is the total transmission power from the transmitting station,

ξ is a ratio of the transmission power of the predetermined radio channel transmitted from the transmitting station to the total transmission power, and

γ is a coefficient multiplied to interference from the transmitting station in communication with the receiving station.

Claim 9 (Currently Amended): ~~A power calculation method as claimed in claim 7~~ In a code division multiple access radio communication system, a power calculation method for calculating a power of a radio wave in a radio channel included in a radio line established between a transmitting station and a receiving station in the system, comprising the step of: calculating the power of the radio wave of the radio channel, using a transmission power of the radio channel and a total transmission power including the transmission power of the radio channel,

wherein ~~[[the]]~~ a required receiving power R is calculated according to one of following formulas:

$$R = R_0 \frac{1}{1 - \frac{\Lambda}{pg} \cdot \frac{P_{total}}{P} \cdot (1 + F)}$$

or

$$R = R_0 \frac{1}{1 - \frac{\Lambda}{pg} \cdot \frac{1 + F}{\xi}}$$

herein,

R_0 is a required receiving power when interference does not exist at all at the receiving station,

Λ is a signal to noise (interference is included) power ratio required at the receiving station,

pg is a spread gain,

P is the transmission power of the predetermined radio channel transmitted from the transmitting station,

P_{total} is the total transmission power from the transmitting station,

ξ is a ratio of the transmission power of the predetermined radio channel transmitted from the transmitting station to the total transmission power, and

F is a power ratio of a total interference from transmitting stations other than the transmitting station in communication with the receiving station, and an interference from the transmitting station in communication with the receiving station.

Claim 10 (Original): A power calculation method as claimed in claim 8, wherein the required receiving power of the radio channel is calculated according to one of following formulas:

$$R = R_0 \frac{1}{1 - \frac{\Lambda}{pg} \cdot \frac{P_{total}}{P} \cdot (\gamma + F)}$$

or

$$R = R_0 \frac{1}{1 - \frac{\Lambda}{pg} \cdot \frac{\gamma + F}{\xi}}$$

herein,

R_0 is a required receiving power when interference does not exist at all at the receiving station,

Λ is a signal to noise (interference is included) power ratio required at the receiving station,

pg is a spread gain,

P is the transmission power of the predetermined radio channel transmitted from the transmitting station,

P_{total} is the total transmission power from the transmitting station,

ξ is a ratio of the transmission power of the predetermined radio channel transmitted from the transmitting station to the total transmission power,

γ is a coefficient multiplied to interference from the transmitting station in communication with the receiving station, and

F is a power ratio of a total interference from transmitting stations other than the transmitting station in communication with the receiving station, and an interference from the transmitting station in communication with the receiving station.

Claim 11 (Currently Amended): In a code division multiple access radio communication system, a power calculation apparatus for calculating a power of a radio wave in a radio channel included in a radio line established between a transmitting station and a receiving station in the system, comprising:

power calculation means that calculates the power of the radio wave of the radio channel, with using a transmission power of the radio channel and a total transmission power including the transmission power of the radio channel,

wherein a required receiving power R in the radio channel is calculated by an equation represented by a required receiving power R_0 when interference does not exist at all at a receiver, and a ratio P_{total}/P , of the total power P_{total} transmitted from the transmitting station and the transmission power P of the predetermined radio channel transmitted from the transmitting station.

Claims 12 and 13 (Canceled).

Claim 14 (Currently Amended): A power calculation apparatus as claimed in claim 11, wherein the power calculation means calculates the [[a]] required receiving power R in the radio channel by a following formula:

$$R = R_0 \frac{1}{1 - \frac{\Lambda}{pg} \bullet \frac{P_{total}}{P}}$$

herein,

~~R₀ is a required receiving power when interference does not exist at all at a receiver,~~

~~Λ is a signal to noise (interference is included) power ratio required at the receiver,~~

and

~~pg is a spread gain[[,]]~~

~~P is the transmission power of the predetermined radio channel transmitted from the transmitting station, and~~

~~P_{total} is the total power transmitted from the transmitting station.~~

Claim 15 (Currently Amended): ~~A power calculation apparatus as claimed in claim 13~~ In a code division multiple access radio communication system, a power calculation apparatus for calculating a power of a radio wave in a radio channel included in a radio line established between a transmitting station and a receiving station in the system, comprising:
power calculation means that calculates the power of the radio wave of the radio channel, using a transmission power of the radio channel and a total transmission power including the transmission power of the radio channel,

wherein the power calculation means uses a following formula to calculate a required receiving power R at a receiver,

$$R = R_0 \frac{1}{1 - \frac{\Lambda}{pg} \cdot \frac{1}{\xi}}$$

herein,

R_0 is a required receiving power when interference does not exist at all at the receiver,

Λ is a signal to noise (interference is included) power ratio needed by the receiver,

pg is a spread gain, and

ξ is a ratio of the transmission power of the predetermined radio channel transmitted from the transmitting station to the total transmission power.

Claims 16 and 17 (Canceled).

Claim 18 (Currently Amended): ~~A power calculation apparatus as claimed in claim 16~~ In a code division multiple access radio communication system, a power calculation apparatus for calculating a power of a radio wave in a radio channel included in a radio line established between a transmitting station and a receiving station in the system, comprising:
power calculation means that calculates the power of the radio wave of the radio channel, using a transmission power of the radio channel and a total transmission power including the transmission power of the radio channel,

wherein a power calculation means calculates ~~[[the]]~~ a required receiving power R by one of following formulas;

$$R = R_0 \frac{1}{1 - \frac{\Lambda}{pg} \cdot \frac{P_{total}}{P} \cdot \gamma}$$

or

$$R = R_0 \frac{1}{1 - \frac{\Lambda}{pg} \cdot \frac{\gamma}{\xi}}$$

herein,

R_0 is a required receiving power when interference does not exist at all at the receiving station,

Λ is a signal to noise (interference is included) power ratio required by the receiving station,

pg is a spread gain,

P is the transmission power of the predetermined radio channel transmitted from the transmitting station,

P_{total} is the total transmission power from the transmitting station,

ξ is a ratio of the transmission power of the predetermined radio channel transmitted from the transmitting station to the total transmission power, and

γ is a coefficient multiplied to interference from the transmitting station in communication with the receiving station.

Claim 19 (Currently Amended): ~~A power calculation apparatus as claimed in claim 17~~
In a code division multiple access radio communication system, a power calculation apparatus for calculating a power of a radio wave in a radio channel included in a radio line established between a transmitting station and a receiving station in the system, comprising:
power calculation means that calculates the power of the radio wave of the radio channel, using a transmission power of the radio channel and a total transmission power including the transmission power of the radio channel,

wherein the power calculation means calculates ~~[[the]]~~ a required receiving power R according to one of following formulas:

$$R = R_0 \frac{1}{1 - \frac{\Lambda}{pg} \cdot \frac{P_{total}}{P} \cdot (1 + F)}$$

or

$$R = R_0 \frac{1}{1 - \frac{\Lambda}{pg} \cdot \frac{1 + F}{\xi}}$$

herein,

R_0 is a required receiving power when interference does not exist at all at the receiving station,

Λ is a signal to noise (interference is included) power ratio required at the receiving station,

pg is a spread gain,

P is the transmission power of the predetermined radio channel transmitted from the transmitting station,

P_{total} is the total transmission power from the transmitting station,

ξ is a ratio of the transmission power of the predetermined radio channel transmitted from the transmitting station to the total transmission power, and

F is a power ratio of a total interference from transmitting stations other than the transmitting station in communication with the receiving station, and an interference from the transmitting station in communication with the receiving station.

Claim 20 (Original): A power calculation apparatus as claimed in claim 18, wherein the power calculation means calculates the required receiving power of the radio channel according to one of following formulas:

$$R = R_0 \frac{1}{1 - \frac{\Lambda}{pg} \cdot \frac{P_{total}}{P} \cdot (\gamma + F)}$$

or

$$R = R_0 \frac{1}{1 - \frac{\Lambda}{pg} \cdot \frac{\gamma + F}{\xi}}$$

herein,

R_0 is a required receiving power when interference does not exist at all at the receiving station,

Λ is a signal to noise (interference is included) power ratio required at the receiving station,

pg is a spread gain,

P is the transmission power of the predetermined radio channel transmitted from the transmitting station,

P_{total} is the total transmission power from the transmitting station,

ξ is a ratio of the transmission power of the predetermined radio channel transmitted from the transmitting station to the total transmission power,

γ is a coefficient multiplied to interference from the transmitting station in communication with the receiving station, and

F is a power ratio of a total interference from transmitting stations other than the transmitting station in communication with the receiving station, and an interference from the transmitting station in communication with the receiving station.